

introducing a siloxane comprising two or more silicons and from two to five carbons bonded to the silicons into a processing chamber;

introducing at least one oxidizable chemical comprising a member selected from the group consisting of furfuryl, furfuryloxy, and neopentyl into the processing chamber;

reacting the siloxane and the at least one oxidizable chemical with an oxidizing gas at a temperature that retains the member in a conformal layer; and

converting the member to dispersed voids.

2. (Canceled) A method for depositing a low dielectric constant film, comprising:

introducing a siloxane comprising two or more silicons and four or more methyl groups bonded to the silicons into a processing chamber;

introducing at least one oxidizable chemical comprising two or more members selected from the group consisting of tertiarybutyl, tertiarybutoxy, furfuryl, furfuryloxy, and neopentyl into the processing chamber;

reacting the siloxane and the at least one oxidizable chemical with an oxidizing gas at a temperature that retains the two or more members in a conformal layer; and

annealing the conformal layer at a temperature sufficient to convert the two or more members to dispersed voids.

3. (Canceled) The method of claim 2, wherein the at least one oxidizable chemical is a furfuryl ether.

4. (Canceled) The method of claim 3, wherein the furfuryl ether is selected from the group consisting of tertiarybutylfurfuryl ether and neopentylfurfuryl ether.

5. (Amended) A method for depositing a low dielectric constant film, comprising:

introducing a siloxane comprising two or more silicons and from two to five carbons bonded to the silicons into a processing chamber;

introducing at least one oxidizable chemical comprising a member selected from the group consisting of furfuryl, furfuryloxy, and neopentyl into the processing chamber, wherein the at least one oxidizable chemical comprises silicon;

reacting the siloxane and the at least one oxidizable chemical with an oxidizing gas at a temperature that retains the member in a conformal layer; and
converting the member to dispersed voids.

6. The method of claim 5, wherein the at least one oxidizable chemical is a silane.
7. The method of claim 6, wherein the silane is dimethylfurfuryloxy silane.
8. The method of claim 5, wherein the at least one oxidizable chemical is a disiloxane.
9. (Canceled) The method of claim 8, wherein the disiloxane is selected from the group consisting of 1,3-dimethyl-1,3-ditertiarybutyl disiloxane and 1,3-dimethyl-1,3-ditertiarybutoxy disiloxane.
10. (Canceled) The method of claim 2, wherein the at least one oxidizable chemical is 1,1-ditertiarybutylethylene.
11. (Canceled) The method of claim 2, wherein the siloxane is selected from the group consisting of 1,1,3,3-tetramethyldisiloxane, 1,3,5,7-tetramethylcyclotetrasiloxane, and octamethylcyclotetrasiloxane.
12. (Canceled) The method of claim 11, wherein the at least one oxidizable chemical is tertiarybutylfurfuryl ether.
13. (Canceled) The method of claim 11, wherein the at least one oxidizable chemical is 1,1-ditertiarybutylethylene.
14. (Canceled) The method of claim 11, wherein the at least one oxidizable chemical is 1,3-dimethyl-1,3-ditertiarybutyl disiloxane.

15. (Canceled) The method of claim 11, wherein the at least one oxidizable chemical is 1,3-dimethyl-1,3-ditertiarybutoxy disiloxane.

16. The method of claim 1, wherein the siloxane is selected from the group consisting of 1,1,3,3-tetramethyldisiloxane, 1,3,5,7-tetramethylcyclotetrasiloxane, and octamethylcyclotetrasiloxane, and the at least one oxidizable chemical is dimethylfurfuryloxy silane.

17. (Canceled) The method of claim 11, wherein the at least one oxidizable chemical is neopentylfurfuryl ether.

18. The method of claim 1, further comprising depositing a silicon carbide layer on the conformal layer prior to the annealing the conformal layer.

Please add the following new claims:

26. (New) The method of claim 1, wherein the dispersed voids are formed by annealing the substrate.

27. (New) The method of claim 1, wherein the siloxane comprises four or more methyl groups bonded to the silicons.

28. (New) The method of claim 1, wherein the at least one oxidizable chemical is difurfuryl ether.

29. (New) The method of claim 1, wherein the siloxane is selected from the group consisting of 1,1,3,3-tetramethyldisiloxane, 1,1,5,5-tetramethyltrisiloxane, 1,1,3,5,5-pentamethyltrisiloxane, 2,4,6-trisilaoxane, cyclo-1,3,5,7-tetrasilano-2,6-dioxy-4,8-dimethylene, 1,3,5,7-tetramethylcyclotetrasiloxane, and octamethylcyclotetrasiloxane.

30. (New) The method of claim 5, wherein the dispersed voids are formed by annealing the substrate.

31. (New) The method of claim 5, wherein the siloxane comprises four or more methyl groups bonded to the silicons.

32. (New) The method of claim 5, wherein the siloxane is selected from the group consisting of 1,1,3,3-tetramethyldisiloxane, 1,1,5,5-tetramethyltrisiloxane, 1,1,3,5,5-pentamethyltrisiloxane, 2,4,6-trisilaoxane, cyclo-1,3,5,7-tetrasilano-2,6-dioxy-4,8-dimethylene, 1,3,5,7-tetramethylcyclotetrasiloxane, and octamethylcyclotetrasiloxane.

33. (New) A method for depositing a low dielectric constant film, comprising:

introducing a siloxane comprising two or more silicons and from two to five carbons bonded to the silicons into a processing chamber;

introducing at least one oxidizable chemical comprising a cyclic ring consisting of carbon, oxygen, and hydrogen into the processing chamber;

reacting the siloxane and the at least one oxidizable chemical with an oxidizing gas at a temperature that retains the cyclic ring in a conformal layer; and

converting the cyclic ring to dispersed voids.

34. (New) The method of claim 33, wherein the oxidizable chemical is selected from the group consisting of vinyl-1,4-dioxinyl ether, vinyl furyl ether, vinyl-1,4-dioxin, vinyl furan, methyl furoate, furyl formate, furyl acetate, furaldehyde, difuryl ketone, difuryl ether, difurfuryl ether, furan, and 1,4-dioxin.

35. (New) The method of claim 33, wherein the oxidizable chemical is difurfuryl ether.

36. (New) The method of claim 35, wherein the siloxane is selected from the group consisting of 1,1,3,3-tetramethyldisiloxane, 1,1,5,5-tetramethyltrisiloxane, 1,1,3,5,5-